1. (**Cancelled**)

2. (Currently Amended) The emergency cooling system as claimed in claim 9~~1~~, wherein the at least one plug is soldered or welded into an associated at least one emergency cooling opening.

3. (Currently Amended) The emergency cooling system as claimed in claim 9~~1~~, wherein the plug is connected to the component in a positively locking manner in an associated at least one emergency cooling opening.

4. (Previously Presented) The emergency cooling system as claimed in claim 3,

wherein the at least one plug has a first positive locking contour;

the at least one emergency cooling opening has a second positive locking contour which is complementary to the first positive locking contour; and

the first positive locking contour and second positive locking contour are configured and arranged so that the at least one plug can be inserted into the at least one emergency cooling opening on the first wall side.

5. (Previously Presented) The emergency cooling system as claimed in claim 3, wherein

the at least one plug has an external screw thread and is screwed into the associated at least one emergency cooling opening, the at least one emergency cooling opening including an internal screw thread which is complementary to the external screw thread.

6. (Currently Amended) The emergency cooling system as claimed in claim 9~~1~~, wherein the at least one plug is configured and arranged to melt when it is exposed to the predetermined temperature or a higher temperature, for a predetermined time.

7. (Currently Amended) The emergency cooling system as claimed in claim 9~~1~~, wherein the melting point of the at least one plug is selected to be greater than the maximum temperature permissible for normal operation of the component and lower than the melting point of the component.

8. (Currently Amended) The emergency cooling system as claimed in claim 9~~1~~, wherein the at least one plug is configured and arranged to melt relatively quickly when the melting point of the at least one plug is reached.

9. (Currently Amended) ~~The emergency cooling system as claimed in claim 1,~~An emergency cooling system for a component which is subject to thermal load in operation, comprising:

a component having a wall which, in operation, is acted on by heat on a first wall side and is acted on by a flow of cooling fluid on a second wall side;

the wall having at least one plug and at least one emergency cooling opening which is closed off by the at least one plug, cooling fluid flowing through the at least one emergency cooling opening from the second wall side to the first wall side when the at least one plug is absent;

the plug being configured and arranged to melt at a predetermined temperature;

the at least one plug comprising a body which is produced separately from the component; and

the at least one plug being inserted into the emergency cooling opening, in which the at least one plug is connected to the component;

wherein each at least one plug has a plug body having the predetermined melting point; and

wherein the plug body has a protective layer which:

acts as a diffusion barrier between the material of the plug body and the material of the wall,

protects the plug body from oxidation, corrosion, erosion, or combinations thereof,

or both.

10. (Currently Amended) ~~The emergency cooling system as claimed in claim 1,~~ An emergency cooling system for a component which is subject to thermal load in operation, comprising:

a component having a wall which, in operation, is acted on by heat on a first wall side and is acted on by a flow of cooling fluid on a second wall side;

the wall having at least one plug and at least one emergency cooling opening which is closed off by the at least one plug, cooling fluid flowing through the at least one emergency cooling opening from the second wall side to the first wall side when the at least one plug is absent;

the plug being configured and arranged to melt at a predetermined temperature;

the at least one plug comprising a body which is produced separately from the component; and

the at least one plug being inserted into the emergency cooling opening, in which the at least one plug is connected to the component;

wherein the at least one plug or the plug body comprises an Ni-based alloy which contains an alloying constituent selected from the group consisting of Hf, Si, Zr, Cr, Al, Ti, Nb, B, Co, and combinations thereof;

wherein, to set a predetermined melting point (Tm) for the at least one plug or for the plug body, the percentages by weight of the individual alloying constituents are selected so that the following equation applies:

Tm = (1460 - 9.5 x Hf - 30 x Si - 170 x Zr - 2.75 x Cr - 9.4 x Al - 10.6 x Ti - 10.8 x Nb - 208 x B + 1 x Co)° C; and

wherein the individual alloying constituents being introduced into the equation on the basis of their percentages by weight.

11. (Currently Amended) ~~The emergency cooling system as claimed in claim 1,~~ An emergency cooling system for a component which is subject to thermal load in operation, comprising:

a component having a wall which, in operation, is acted on by heat on a first wall side and is acted on by a flow of cooling fluid on a second wall side;

the wall having at least one plug and at least one emergency cooling opening which is closed off by the at least one plug, cooling fluid flowing through the at least one emergency cooling opening from the second wall side to the first wall side when the at least one plug is absent;

the plug being configured and arranged to melt at a predetermined temperature;

the at least one plug comprising a body which is produced separately from the component; and

the at least one plug being inserted into the emergency cooling opening, in which the at least one plug is connected to the component;

wherein the at least one plug or plug body comprises one of the following Ni-based alloys:

Ni-Hf alloy containing from 25 to 30% by weight of Hf, remainder Ni;

Ni-Si alloy containing from 7 to 12% by weight of Si, remainder Ni;

Ni-Hf-Si alloy containing from 20 to 30% by weight of Hf, from 5 to 12% by weight of Si, remainder Ni;

Ni-Hf-Si-Cr-Al alloy containing from 10 to 30% by weight of Hf, from 5 to 12% by weight of Si, from 5 to 30% by weight of Cr, from 2 to 5% by weight of Al, remainder Ni;

Ni-Hf-Cr-Al-Si-Co-Ti-Ta-Nb-Zr alloy containing from 5 to 20% by weight of Hf, from 5 to 30% by weight of Cr, from 2 to 5% by weight of Al, from 4 to 12% by weight of Si, from 0 to 25% by weight of Co, from 0 to 5% by weight of Ti, from 0 to 5% by weight of Ta, from 0 to 5% by weight of Nb, from 0.3 to 3% by weight of Zr, remainder Ni;

Ni-Hf-Cr-Al-Si-Co-Ti-Ta-Nb-Zr-B alloy containing from 5 to 20% by weight of Hf, from

5 to 30% by weight of Cr, from 2 to 5% by weight of Al, from 4 to 12% by weight of Si, from 0 to 25% by weight of Co, from 0 to 5% by weight of Ti, from 0 to 5% by weight of Ta, from 0 to 5% by weight of Nb, from 0.3 to 3% by weight of Zr, from 0 to 2.5% by weight of B, remainder Ni.

12. (Previously Presented) The emergency cooling system as claimed in claim 9, wherein the protective layer comprises a thin Pt layer.

13. **(Cancelled)**

14. **(Cancelled)**

15. **(Cancelled)**

16. **(Cancelled)**

17. (Currently Amended) ~~The emergency cooling system as claimed in claim 3,~~ An emergency cooling system for a component which is subject to thermal load in operation, comprising:

a component having a wall which, in operation, is acted on by heat on a first wall side and is acted on by a flow of cooling fluid on a second wall side;

the wall having at least one plug and at least one emergency cooling opening which is closed off by the at least one plug, cooling fluid flowing through the at least one emergency cooling opening from the second wall side to the first wall side when the at least one plug is absent;

the plug being configured and arranged to melt at a predetermined temperature;

the at least one plug comprising a body which is produced separately from the component; and

the at least one plug being inserted into the emergency cooling opening, in which the at least one plug is connected to the component;

wherein the plug is connected to the component in a positively locking manner in an associated at least one emergency cooling opening;

wherein the at least one plug has first bayonet catch elements and is anchored in an associated at least one emergency cooling opening; and

wherein the at least one emergency cooling opening has second bayonet catch elements which are complementary to the first bayonet catch elements.

18. (Currently Amended) The emergency cooling system as claimed in claim 9~~1~~, wherein the component comprises a component of a turbine.

19. (**Cancelled**)

20. (Previously Presented) The emergency cooling system as claimed in claim 9, wherein the protective layer comprises a Pt layer and an Al layer.

21. (Previously Presented) The emergency cooling system as claimed in claim 9, wherein the protective layer comprises an Al layer or an Al alloy layer.

22. (New) The emergency cooling system as claimed in claim 10, wherein the at least one plug is soldered or welded into an associated at least one emergency cooling opening.

23. (New) The emergency cooling system as claimed in claim 10, wherein the plug is connected to the component in a positively locking manner in an associated at least one emergency cooling opening.

24. (New) The emergency cooling system as claimed in claim 10, wherein the at least

one plug is configured and arranged to melt when it is exposed to the predetermined temperature or a higher temperature, for a predetermined time.

25. (New) The emergency cooling system as claimed in claim 10, wherein the melting point of the at least one plug is selected to be greater than the maximum temperature permissible for normal operation of the component and lower than the melting point of the component.

26. (New) The emergency cooling system as claimed in claim 10, wherein the at least one plug is configured and arranged to melt relatively quickly when the melting point of the at least one plug is reached.

27. (New) The emergency cooling system as claimed in claim 10, wherein the component comprises a component of a turbine.

28. (New) The emergency cooling system as claimed in claim 11, wherein the at least one plug is soldered or welded into an associated at least one emergency cooling opening.

29. (New) The emergency cooling system as claimed in claim 11, wherein the plug is connected to the component in a positively locking manner in an associated at least one emergency cooling opening.

30. (New) The emergency cooling system as claimed in claim 11, wherein the at least one plug is configured and arranged to melt when it is exposed to the predetermined temperature or a higher temperature, for a predetermined time.

31. (New) The emergency cooling system as claimed in claim 11, wherein the melting point of the at least one plug is selected to be greater than the maximum temperature

permissible for normal operation of the component and lower than the melting point of the component.

32. (New) The emergency cooling system as claimed in claim 11, wherein the at least one plug is configured and arranged to melt relatively quickly when the melting point of the at least one plug is reached.

33. (New) The emergency cooling system as claimed in claim 11, wherein the component comprises a component of a turbine.

34. (New) The emergency cooling system as claimed in claim 17, wherein the at least one plug is soldered or welded into an associated at least one emergency cooling opening.

35. (New) The emergency cooling system as claimed in claim 17, wherein the plug is connected to the component in a positively locking manner in an associated at least one emergency cooling opening.

36. (New) The emergency cooling system as claimed in claim 17, wherein the at least one plug is configured and arranged to melt when it is exposed to the predetermined temperature or a higher temperature, for a predetermined time.

37. (New) The emergency cooling system as claimed in claim 17, wherein the melting point of the at least one plug is selected to be greater than the maximum temperature permissible for normal operation of the component and lower than the melting point of the component.

38. (New) The emergency cooling system as claimed in claim 17, wherein the at least one plug is configured and arranged to melt relatively quickly when the melting point of the at

least one plug is reached.

39. (New) The emergency cooling system as claimed in claim 17, wherein the component comprises a component of a turbine.